

**REMARKS**

Claims 1-11 are all the claims pending in the application. Applicant acknowledges with appreciation the indication of patentable subject matter recited in claim 4, but respectfully requests reconsideration of the application and allowance of all claims in view of the following remarks.

Regarding the status of claim 11, it is amended as set forth in the previous response, and in inadvertent reference to this claim in the remarks as being canceled is regretted.

As pointed out in the earlier filed response, Schrodinger et al AC couples both output terminals of the differential amplifier to the respective sides of the laser. The capacitor C1 is in series in the connection of one output terminal to the laser, and the capacitor C2 is in series in the connection to the other side of the laser. In the present Office action the examiner disagrees with this point of distinction, arguing that the capacitors are connected in parallel with the active compensation circuits, and that the active compensation circuit may be considered a DC coupling of the differential amplifier to the laser. Applicant respectfully disagrees.

First, Fig. 1 of Schrodinger et al shows that the active compensation circuit is not a DC coupling. It is a low pass filter followed by an inverter and then a voltage follower.

Second, ignoring the issue of whether or not the active compensation circuit constitutes a DC coupling, the position proposed by the examiner results in both sides being DC coupled to the laser, and there is no side that is AC coupled. More particularly, as evidenced in the attached excerpt from the Electronics Dictionary on Answers.com, an AC coupling is a coupling that passes an AC signal while blocking a DC voltage. The attached excerpt from *Electronic Test Instruments*, by Robert A. Witte, published by Prentice Hall and excerpted on the National

Instruments web site, describes that a DC coupling passes both AC and DC signals, while an AC coupling passes only AC signals. These are but two examples of numerous sources defining an AC coupling as a coupling which does not pass a DC voltage. The last paragraph of claim 1 recites that the second output of the differential amplifier is AC-coupled to a second terminal of the diode. The coupling from the second output of the amplifier to the second terminal of the diode is whatever results from the combination of the coupling capacitor and the active compensation circuit. A DC coupling in parallel with an AC coupling would combine to form a DC coupling, because the DC component is not blocked. If the active compensation circuits do indeed pass a DC voltage so that they constitute DC coupling, then both sides of the differential amplifier are DC coupled to the laser. If the active compensation circuits do not pass DC voltage, then both sides of the differential amplifier are AC coupled to the laser.

The fact is that AC coupling and DC coupling are mutually exclusive, and both cannot exist simultaneously because part of the definition of AC coupling requires blocking the DC component. Since both sides of the differential amplifier are coupled to the laser in the same manner, they are either both AC coupled or both DC coupled, but it is clearly not the case that one output is AC coupled and the other DC coupled, as is clearly required in claims 1 and 11.

With regard particularly to claim 11, applicant requests the examiner to explain how, even with the examiner's reading of Schrodinger et al, the laser diode will be single end driven when the amplifier output is a DC signal.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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